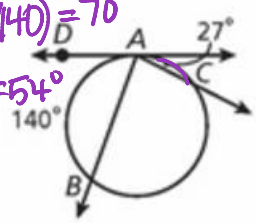
12.5 HOMEWORK

Page 834 #'s 1, 2, 5, 8-10, 21, 24, 25, 27, 28

Find each measure.

1. $m\angle DAB = \frac{1}{2}(140) = 70°$
2. $m\overset{\frown}{AC} = 2(27) = 54°$

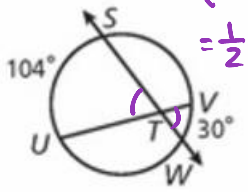


$m\angle DAB = 70°$

$m\overset{\frown}{AC} = 54°$

5. $m\angle STU = \frac{1}{2}(m\overset{\frown}{SU} + m\overset{\frown}{VW})$

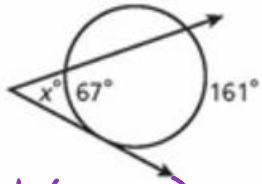
$= \frac{1}{2}(104 + 30) = \frac{1}{2}(134) = 67$



$m\angle STU = 67°$

Find the value of x.

8.

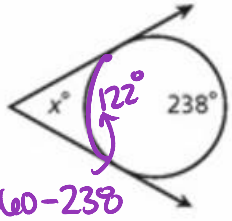


$x = \frac{1}{2}(161 - 67)$

$x = \frac{1}{2}(94)$

$x = 47°$

9.



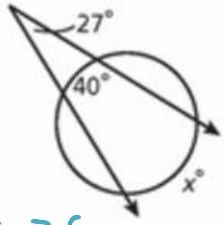
$360 - 238$

$x = \frac{1}{2}(238 - 122)$

$x = \frac{1}{2}(116)$

$x = 58°$

10.

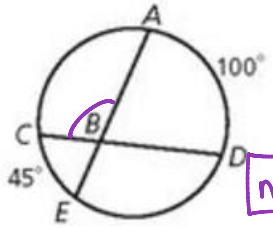


$2 \cdot [27] = [\frac{1}{2}(x - 40)] \cdot 2$

$54 = x - 40$

$x = 94°$

21. $m\angle ABC$



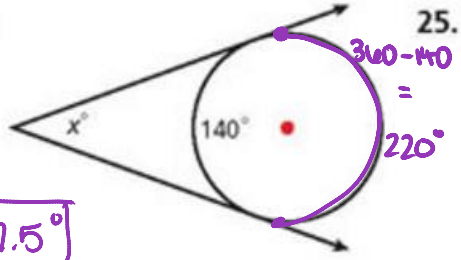
$m\angle ABC = 107.5°$

1st: Find $m\angle ABD = \frac{1}{2}(100 + 45)$

$= \frac{1}{2}(145) = 72.5$

2nd. Find $m\angle ABC = 180 - 72.5 = 107.5$

24.



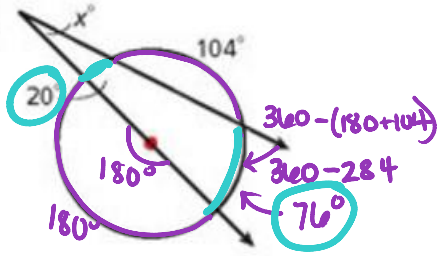
$360 - 140 = 220°$

$x = \frac{1}{2}(220 - 140)$

$x = \frac{1}{2}(80)$

$x = 40°$

25.



$360 - (180 + 104) = 360 - 284 = 76°$

$x = \frac{1}{2}(76 - 20)$

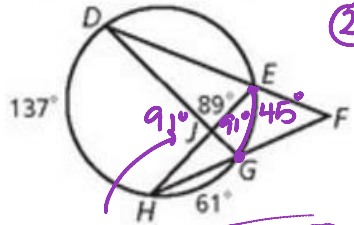
$x = \frac{1}{2}(56)$

$x = 28°$

Multi-Step Find each measure.

27. $m\overset{\frown}{EG}$

28. $m\overset{\frown}{DE}$



(27) $m\angle EJG = \frac{1}{2}(m\overset{\frown}{DH} + m\overset{\frown}{EG})$

$2 \cdot [91°] = [\frac{1}{2}(137 + x)] 2$

$182 = 137 + x$

$x = 45°$

$m\overset{\frown}{EG} = 45°$

$m\angle DJH = 180 - 89 = 91°$

(28) 2nd way: $m\overset{\frown}{DE} = 360 - (137 + 61 + 45)$

$m\overset{\frown}{DE} = 117°$

(28) 1way: $m\angle DJE = \frac{1}{2}(m\overset{\frown}{DE} + m\overset{\frown}{HG})$

$2[89] = [\frac{1}{2}(x + 61)] \cdot 2$

$178 = x + 61$

$x = 117°$

$m\overset{\frown}{DE} = 117°$